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EXAMINER	
HOANG, SON T	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/540,440	THEIMER ET AL.	
	Examiner	Art Unit	
	SON T. HOANG	2165	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *03* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 April 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33 and 35-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-33 and 35-39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 June 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This communication is in response to the amendment filed on April 17, 2008. Applicant's submission has been entered.

Abstract of the disclosure has been amended.

Claims 1-3, **5-8**, **13-15**, **18**, **22-27**, and **30-33**, and **35-39** have been amended.

Claims 1-33, and **35-39** are pending in this Office action.

Response to Arguments

2. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues towards independent **claims 1**, **35**, and **39**, regarding the fact that Brechner does not teach or suggest "*said context information is related to at least one current condition of the mobile terminal device at the time of said any user operation*".

The Examiner concurs with Applicant's remark. However, it is noted that the newly added feature is disclosed in Spriestersbach et al. (*Pub. No. US 2003/0148773, filed on April 30, 2002; hereinafter Spriestersbach*). Accordingly, Spriestersbach teaches when user 100 is using a mobile device 102 to place a sales order and the context, i.e. location of mobile device 102, will be identified and used simplify or reduce the complexity of the mobile device's user interface ([0039]). Spriestersbach further discloses three components of a mobile device's context information: (1) activity; (2) environment; and (3) self. The activity

component describes the task a user is working on, focusing on the user of the device, and his or her habits and behavior. The environment describes the physical and social surrounding of the user, such as, the current location, activities in the environment, and other external properties like temperature and humidity. The self component contains the status of the device itself including any information about the device including resource utilization, internal temperature, network status, and battery charge state ([0027]-[0029]).

In view of the above, the Examiner contends that all limitations as recited in the claims have been addressed in this instant Office action. Hence, Applicant's arguments do not distinguish over the claimed invention over the prior arts of record.

For the above reasons, the Examiner believes that rejection of this instant Office action is proper.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. **Claims 1-5, 13, 17, 27-28, 30-35, 37** and **39**, are rejected under 35 U.S.C. 103(a) as being unpatentable Brechner et al. (*Pat. No. US 6,741,996, filed on April 18, 2001; hereinafter Brechner*) in view of Spriestersbach et al. (*Pub. No. US 2003/0148773, filed on April 30, 2002; hereinafter Spriestersbach*).

Regarding **claim 1**, Brechner clearly shows and discloses a method comprising:

obtaining user provided information (*automatically locating the personal content and importing it into a user's personal media database*, [Column 6, Lines 3-6]), in consequence to any user operation on a mobile terminal device (*organizing media clips on hand-held devices, pocket personal computing devices*, [Column 4, Lines 23-29]);

obtaining context information associated with said user provided information (*a user might store a digital photograph file "beach1 jpg" that was taken with an OLYMPUS™ digital camera on the beach during a vacation to Hawaii in 1999 in a folder having a path such as "C:/My Documents/My Photo/Digital Camera/Olympus/Vacations+Hawaii1999Beach1.jpg." This path would be parsed by the Clip Organizer software to identify keywords for inclusion*

in the metadata for the file. These keywords would include: "My Documents," "My Photos," "Digital Camera," "Olympus," "Vacations," "Hawaii," and "1999.", [Column 10, Lines 47-57]);

assigning meta-information obtained from said context information to said user provided information (*as the content is being imported into database created by the Clip Organizer, it simultaneously indexed the contents by adding keywords or metadata based upon contextual information*, [Column 6, Lines 6-11]); and

storing said user provided information and said meta-information in a history storage in order to establish an information history functionality (*content is being imported into a database created by the Clip Organizer, metadata based on contextual information is also added to enable a user to find the personal content at a later time using a keyword search*, [Column 6, Lines 6-11]);

wherein said meta-information is employed for retrieval of said user provided information by matching request information of a retrieval request with said meta-information for selecting a user provided information assigned to said meta-information matched to said request information (*The user could also specifically identify digital photographs relating to beach scenes by searching for metadata that include the word "beach" within the metadata associated with each of the files included within the collection hierarchy stored in the user's content database*, [Column 11, Lines 11-23]).

Brechner does not explicitly disclose said context information is related to at least one current condition of the mobile terminal device at the time of said any user operation.

Spriestersbach discloses when user 100 is using a mobile device 102 to place a sales order and the context, i.e. location of mobile device 102, will be identified and used simplify or reduce the complexity of the mobile device's user interface ([0039]). Spriestersbach further discloses three components of a mobile device's context information: (1) activity; (2) environment; and (3) self. The activity component describes the task a user is working on, focusing on the user of the device, and his or her habits and behavior. The environment describes the physical and social surrounding of the user, such as, the current location, activities in the environment, and other external properties like temperature and humidity. The self component contains the status of the device itself including any information about the device including resource utilization, internal temperature, network status, and battery charge state ([0027]-[0029]).

It would have been obvious to an ordinary person skilled in the art at the time of the invention was made to incorporate the teachings of Spriestersbach with the teachings of Brechner for the purpose of providing a location context-aware mobile system determines the location of a mobile device and updates a user interface based on the location of the device. By using the location of the mobile device to reduce the amount of information required to be entered by a user in a business process application, the system increases the feasibility of

providing business process applications on mobile devices such as mobile telephones ([Abstract] of Spriestersbach).

Regarding **claim 2**, Brechner further discloses said assigning comprises:

extracting said meta-information from said context information (*as the content is being imported into database created by the Clip Organizer, it simultaneously indexed the contents by adding keywords or metadata based upon contextual information*, [Column 6, Lines 6-11]).

Regarding **claim 3**, Brechner further discloses said obtaining of said user provided information comprises:

receiving user input information being generated by user operation of any input means of said mobile terminal device and/or

receiving transaction information and/or communication information being received via any communication interface of said mobile terminal device (*accessing those media files can be done with computing devices in distributed computing environments that include remote processing devices linked through a communication network*, [Column 4, Lines 29-32]),

wherein said user input information and/or transaction information and/or said communication information represent said user provided information (*media files generated from digital cameras, web site image files, home video editing files, sound files, and other types of user media content are stored on a hard drive*, [Column 1, Lines 14-18]).

Regarding **claim 4**, Brechner further discloses said assigning of said meta-information to said user provided information comprises:

extracting labeling information and/or indexing information from said context information (*a user might store a digital photograph file "beach1 jpg" that was taken with an OLYMPUS™ digital camera on the beach during a vacation to Hawaii in 1999 in a folder having a path such as "C:/My Documents/My Photo/Digital Camera/Olympus/Vacations+Hawaii1999Beach1.jpg." This path would be parsed by the Clip Organizer software to identify keywords for inclusion in the metadata for the file. These keywords would include: "My Documents," "My Photos," "Digital Camera," "Olympus," "Vacations," "Hawaii," and "1999."*, [Column 10, Lines 47-57]);

assigning said labeling information and/or indexing information to said user provided information (*as the content is being imported into database created by the Clip Organizer, it simultaneously indexed the contents by adding keywords or metadata based upon contextual information,* [Column 6, Lines 6-11]); and

storing said labeling information and/or indexing information and said user provided information (*content is being imported into a database created by the Clip Organizer, metadata based on contextual information is also added to enable a user to find the personal content at a later time using a keyword search*, [Column 6, Lines 6-11]);

wherein said labeling information and/or indexing information is employed as said meta-information for establishing retrieval functionality of said user input

history (*The user could also specifically identify digital photographs relating to beach scenes by searching for metadata that include the word "beach" within the metadata associated with each of the files included within the collection hierarchy stored in the user's content database*, [Column 11, Lines 11-23]).

Regarding **claim 5**, Brechner further discloses said associating said context information with said user provided information comprises:

generating referencing information for at least a part of said user provided information (*each collection in the database is associated a full path that indicates the location on the hard drive of the collection*, [Column 9, Lines 53-55]);

storing said referencing information in a first storage area (*the original media file with full path address would serve as a reference in order to import that file into the database created by Clip Organizer*, [Column 9, Lines 48-59]); and

storing said part of said user provided information in a second storage area; wherein said referencing information comprises address information which allow to retrieve said part of user provided information from said second storage area (*Provision of this full path is important, because it sets up an import and indexing component and a browse import component*, [Column 9, Lines 55-65]).

Regarding **claim 13**, Brechner further discloses:

obtaining said user provided information including user provided audio information and in parallel additional user provided information, said user provided audio information being recorded and stored (*media files generated from digital cameras, web site image files, home video editing files, sound files, and other types of user media content are stored on a hard drive*, [Column 1, Lines 14-18]);

obtaining said context information in parallel to said user provided audio information, said context information comprising user input information generated in consequence to user action against said mobile terminal device (*a user might store a digital photograph file "beach1 jpg" that was taken with an OLYMPUS™ digital camera on the beach during a vacation to Hawaii in 1999 in a folder having a path such as "C:/My Documents/My Photo/Digital Camera/Olympus/Vacations+Hawaii1999Beach1.jpg." This path would be parsed by the Clip Organizer software to identify keywords for inclusion in the metadata for the file. These keywords would include: "My Documents," "My Photos," "Digital Camera," "Olympus," "Vacations," "Hawaii," and "1999."*, [Column 10, Lines 47-57]); and

generating meta-information comprising information about said additional user provided information and said context information (*as the content is being imported into database created by the Clip Organizer, it simultaneously indexed the contents by adding keywords or metadata based upon contextual information*, [Column 6, Lines 6-11]).

Regarding **claim 17**, Brechner further discloses said meta-information is displayed by assigning graphical elements to each information entry included in said meta-information and predicting said graphical elements illustrating the content of the meta-information and showing associations defined in said meta-information (*Figure 10*).

Regarding **claim 27**, Brechner further discloses a method for retrieving user provided information being organized, comprising:

receiving a request for retrieving, said request comprising request information for instructing to retrieve certain user provided information (*If the user wants to search for keywords in the metadata associated with the media files, the user will enter the likely keywords in a text block 354*, [Column 15, Lines 37-44]);

comparing said request information with said meta-information being assigned to said user provided information which is provided by said information history functionality (*In this example, the user has entered the text "Vacation," indicating that any media file having that text string in its path and thus automatically included in the metadata for the file as a result of the automatic indexing of the media files will be located by the search*, [Column 15, Lines 37-44]);

retrieving said user provided information being assigned to said meta-information which matches said request information (*any media file that has the searched word "Vacation" in its metadata will be located by the search*, [Column 15, Lines 37-44]);

generating a response comprising said retrieved user provided information (*When the Search control is selected, a list of all media files meeting the desired criteria will be displayed to the user*, [Colum 15, Lines 53-55]); and

transmitting said response (*the search results are displayed on the monitor*, [Column 15, Lines 53-55] and Figure 1).

Regarding **claim 28**, Brechner further discloses said retrieving of said user provided information comprises:

retrieving referencing information being associated with said user provided information to be retrieved, said referencing information comprising address information which addresses said part of user provided information being stored in a second storage area (*a user might store a digital photograph file "beach1 jpg" that was taken with an OLYMPUS™ digital camera on the beach during a vacation to Hawaii in 1999 in a folder having a path such as "C:/My Documents/My Photo/Digital Camera/Olympus/Vacations+Hawaii1999Beach1.jpg." This path would be parsed by the Clip Organizer software to identify keywords for inclusion in the metadata for the file. These keywords would include: "My Documents," "My Photos," "Digital Camera," "Olympus," "Vacations," "Hawaii," and "1999."*, [Column 10, Lines 47-57]); and

retrieving said part of user provided information from said second storage area (*The user could also specifically identify digital photographs relating to beach scenes by searching for metadata that include the word "beach" within the*

metadata associated with each of the files included within the collection hierarchy stored in the user's content database, [Column 11, Lines 11-23]).

Regarding **claim 30**, Brechner clearly shows and discloses a method for providing storage capacity for organizing user provided information being provided with meta-information (*Abstract*), comprising:

receiving a request to store at least a part of said user provided information (*Figure 11 shows an interface to organize selected media clips on command. This interface could be displayed on hand-held devices, pocket personal computing devices*, [Column 4, Lines 23-29]), wherein said request comprises said part of said user provided information and referencing information (*Figure 11, #324 & #326*);

storing said part of said user provided information and said referencing information such that said part of said user provided information is retrievable in conjunction with said referencing information (*a user might store a digital photograph file "beach1 jpg" that was taken with an OLYMPUS™ digital camera on the beach during a vacation to Hawaii in 1999 in a folder having a path such as "C:/My Documents/My Photo/Digital Camera / Olympus / Vacations+Hawaii1999Beach1.jpg." This path would be parsed by the Clip Organizer software to identify keywords for inclusion in the metadata for the file. These keywords would include: "My Documents," "My Photos," "Digital Camera," "Olympus," "Vacations," "Hawaii," and "1999."*, [Column 10, Lines 47-57]).

receiving a request for retrieving at least said part of said user provided information wherein said request comprises referencing information (*If the user wants to search for keywords in the metadata associated with the media files, the user will enter the likely keywords in a text block 354*, [Column 15, Lines 37-44]);

retrieving said part of said user provided information in accordance with said referencing information (*In this example, the user has entered the text "Vacation," indicating that any media file having that text string in its path and thus automatically included in the metadata for the file as a result of the automatic indexing of the media files will be located by the search*, [Column 15, Lines 37-44]); and

generating a response including said retrieved part of said user provided information (*When the Search control is selected, a list of all media files meeting the desired criteria will be displayed to the user,* [Colum 15, Lines 53-55]).

Regarding **claim 31**, Brechner clearly shows and discloses a computer readable storage medium embedded with a computer program comprising programming code for carrying out the operations of **claim 1** ([Column 4, Lines 12-17]).

Regarding **claim 32**, Brechner clearly shows and discloses a computer readable storage medium embedded with a computer program comprising programming code for carrying out the operations of **claim 2** ([Column 4, Lines 12-17]).

Regarding **claim 33**, Brechner clearly shows and discloses computer program product for organizing and retrieving of user provided information with meta-information, wherein said computer program product is comprising program code sections stored on a computer readable medium for carrying out the method of according to **claim 1**, when said computer program product is executed on a processing device, a networked device, a networked server, a terminal device or a communication terminal device ([Column 4, Lines 12-17]).

Regarding **claim 35**, Brechner clearly shows and discloses an apparatus (*Figure 1*), comprising:

a component (*Figure 1*) for obtaining user provided information and context information associated with said user provided information, in consequence to any user operation against said apparatus (*a user might store a digital photograph file "beach1 jpg" that was taken with an OLYMPUS™ digital camera on the beach during a vacation to Hawaii in 1999 in a folder having a path such as "C:/My Documents/My Photo/Digital Camera / Olympus / Vacations+Hawaii1999Beach1.jpg." This path would be parsed by the Clip Organizer software to identify keywords for inclusion in the metadata for the file. These keywords would include: "My Documents," "My Photos," "Digital Camera," "Olympus," "Vacations," "Hawaii," and "1999."*, [Column 10, Lines 47-57]);

a component (*Figure 1*) for assigning meta-information obtained from said context information, wherein said context information is related to at least one current condition of the apparatus at the time of said any user operations (*as the*

content is being imported into database created by the Clip Organizer, it simultaneously indexed the contents by adding keywords or metadata based upon contextual information, [Column 6, Lines 6-11]), and

a storage component (*Figure 1*) for a storing said user provided information and said meta-information (*content is being imported into a database created by the Clip Organizer, metadata based on contextual information is also added to enable a user to find the personal content at a later time using a keyword search*, [Column 6, Lines 6-11]);

wherein said meta-information is employed for retrieval of said user provided information by matching request information of a retrieval request with said meta-information for selecting a user provided information being assigned to said meta-information matched to said request information (*The user could also specifically identify digital photographs relating to beach scenes by searching for metadata that include the word "beach" within the metadata associated with each of the files included within the collection hierarchy stored in the user's content database*, [Column 11, Lines 11-23]).

Brechner does not explicitly disclose said context information is related to at least one current condition of the mobile terminal device at the time of said any user operation.

Spriestersbach discloses when user 100 is using a mobile device 102 to place a sales order and the context, i.e. location of mobile device 102, will be identified and used simplify or reduce the complexity of the mobile device's user

interface ([0039]). Spriestersbach further discloses three components of a mobile device's context information: (1) activity; (2) environment; and (3) self. The activity component describes the task a user is working on, focusing on the user of the device, and his or her habits and behavior. The environment describes the physical and social surrounding of the user, such as, the current location, activities in the environment, and other external properties like temperature and humidity. The self component contains the status of the device itself including any information about the device including resource utilization, internal temperature, network status, and battery charge state ([0027]-[0029]).

It would have been obvious to an ordinary person skilled in the art at the time of the invention was made to incorporate the teachings of Spriestersbach with the teachings of Brechner for the purpose of providing a location context-aware mobile system determines the location of a mobile device and updates a user interface based on the location of the device. By using the location of the mobile device to reduce the amount of information required to be entered by a user in a business process application, the system increases the feasibility of providing business process applications on mobile devices such as mobile telephones ([Abstract] of Spriestersbach).

Regarding **claim 37**, Brechner further discloses:

a component (*Figure 1*) for obtaining user provided audio information and additional user provided information (*a user might store a digital photograph file "beach1 jpg" that was taken with an OLYMPUS™ digital camera on the beach*

during a vacation to Hawaii in 1999 in a folder having a path such as "C:/My Documents/My Photo/Digital Camera/Olympus/Vacations+Hawaii1999Beach1.jpg." This path would be parsed by the Clip Organizer software to identify keywords for inclusion in the metadata for the file. These keywords would include: "My Documents," "My Photos," "Digital Camera," "Olympus," "Vacations," "Hawaii," and "1999.", [Column 10, Lines 47-57]);

a component (*Figure 1*) for recording said user provided audio information (*before the sound/media files were stored on a computer's hard drive, it is inherent that the files had been recorded/downloaded/transferred from other sources*, [Column 1, Lines 13-16]);

a storage component for storing said user provided audio information (*hard drive*, [Column 1, Lines 13-16]);

a component (*Figure 1*) for obtaining context information in parallel to said user provided audio information, said context information comprising user input information generated in consequence on a user action against said mobile terminal device (*a user might store a digital photograph file "beach1 jpg" that was taken with an OLYMPUS™ digital camera on the beach during a vacation to Hawaii in 1999 in a folder having a path such as "C:/My Documents/My Photo/Digital Camera/Olympus/Vacations+Hawaii1999Beach1.jpg." This path would be parsed by the Clip Organizer software to identify keywords for inclusion in the metadata for the file. These keywords would include: "My Documents," "My*

Photos," "Digital Camera," "Olympus," "Vacations," "Hawaii," and "1999.", [Column 10, Lines 47-57]); and

a component (*Figure 1*) for generating meta-information comprising information about said additional user provided information and said context information (*as the content is being imported into database created by the Clip Organizer, it simultaneously indexed the contents by adding keywords or metadata based upon contextual information*, [Column 6, Lines 6-11]).

Regarding **claim 39**, Brechner clearly shows and discloses storage device capable to provide storage capacity for organizing user provided information being provided with meta-information (*Figure 1*), comprising:

a interface component for receiving a request for storing, for receiving a request for retrieving and for transmitting a response in consequence on said request for retrieving (*A user may enter commands and information into PC 20 through input devices such as a keyboard 40, and through a separate pointing device 42. Other input devices (not shown) may include a microphone, joystick, game pad, satellite dish, scanner, or the like. These and other input devices are often connected to processing unit 21 through an input/output (I/O) interface 46 that is coupled to the system bus. The term I/O interface is intended to encompass each interface correspondingly used for a serial port, a parallel port, a game port, an infrared port, a radio frequency port, and/or a universal serial bus (USB) port*, [Column 5, Lines 6-17]);

wherein said request for storing is a request for storing at least a part of user provided information from a mobile terminal device configured to organize user provided information with meta-information (*Figure 11 shows an interface to organize selected media clips on command. This interface could be displayed on hand-held devices, pocket personal computing devices*, [Column 4, Lines 23-29]), said request comprising said part of said user provided information and referencing information to be stored (*Figure 11, #324 & #326*);

wherein said request for retrieving is a request for retrieving at least a part of user provided information from said mobile terminal device, said request comprising referencing information (*If the user wants to search for keywords in the metadata associated with the media files, the user will enter the likely keywords in a text block 354*, [Column 15, Lines 37-44]);

a storage component (*Figure 1*) for storing said part of said user provided information and said referencing information such that said part of said user provided information is retrievable in conjunction with said referencing information (*a user might store a digital photograph file "beach1 jpg" that was taken with an OLYMPUS™ digital camera on the beach during a vacation to Hawaii in 1999 in a folder having a path such as "C:/My Documents/My Photo/Digital Camera/Olympus/Vacations+Hawaii1999Beach1.jpg." This path would be parsed by the Clip Organizer software to identify keywords for inclusion in the metadata for the file. These keywords would include: "My Documents," "My*

Photos," "Digital Camera," "Olympus," "Vacations," "Hawaii," and "1999.", [Column 10, Lines 47-57]);

a component (*Figure 1*) for retrieving said part of said user provided information being requested with said request for retrieving in accordance with said referencing information (*If the user wants to search for keywords in the metadata associated with the media files, the user will enter the likely keywords in a text block 354. In this example, the user has entered the text "Vacation," indicating that any media file having that text string in its path and thus automatically included in the metadata for the file as a result of the automatic indexing of the media files will be located by the search*, [Column 15, Lines 37-44]); and

a component (*Figure 1*) for generating a response including said retrieved part of said user provided information (*When the Search control is selected, a list of all media files meeting the desired criteria will be displayed to the user*, [Colum 15, Lines 53-55]).

Brechner does not explicitly disclose said context information is related to at least one current condition of the mobile terminal device at the time of said any user operation.

Spriestersbach discloses when user 100 is using a mobile device 102 to place a sales order and the context, i.e. location of mobile device 102, will be identified and used simplify or reduce the complexity of the mobile device's user interface ([0039]). Spriestersbach further discloses three components of a mobile

device's context information: (1) activity; (2) environment; and (3) self. The activity component describes the task a user is working on, focusing on the user of the device, and his or her habits and behavior. The environment describes the physical and social surrounding of the user, such as, the current location, activities in the environment, and other external properties like temperature and humidity. The self component contains the status of the device itself including any information about the device including resource utilization, internal temperature, network status, and battery charge state ([0027]-[0029]).

It would have been obvious to an ordinary person skilled in the art at the time of the invention was made to incorporate the teachings of Spriestersbach with the teachings of Brechner for the purpose of providing a location context-aware mobile system determines the location of a mobile device and updates a user interface based on the location of the device. By using the location of the mobile device to reduce the amount of information required to be entered by a user in a business process application, the system increases the feasibility of providing business process applications on mobile devices such as mobile telephones ([Abstract] of Spriestersbach).

6. **Claims 6-9**, **11-12**, **29**, and **36**, are rejected under 35 U.S.C. 103(a) as being unpatentable over Brechner et al. (*Pat. No. US 6,741,996, filed on April 18, 2001; hereinafter Brechner*) in view of Spriestersbach et al. (*Pub. No. US 2003/0148773, filed on April 30, 2002; hereinafter Spriestersbach*), and further in view of Vronay et al. (*Pub. No. US 2003/0156138, filed on June 28, 2002; hereinafter Vronay*).

Regarding **claim 6**, Brechner, as modified by Spriestersbach, does not disclose the limitations of this instant claim.

Vronay discloses a method for organizing user provided information with meta-information obtained from calendar information (*Abstract*), said method comprising:

obtaining said calendar information from an electronic calendar implemented in said mobile terminal device (*calendar-based interface system may be implemented as software that is stored on and executed by one or more computers such as handheld devices, digital cellular telephone etc.*, [0022]), said calendar information representing said context information (*Table 1A shows a list of exemplary information that may be obtained by system activity monitor 102 and stored in calendar system database 104*, [0026]);

matching said calendar information and said user provided information (*system activity monitor 102 may obtain the information about the objects with which a computer user interacts, determine whether the objects are new or unique relative to other objects listed in calendar system database 104 (e.g., based upon a unique object identifier), and aggregate or store the activities in calendar system database 104 in association with the unique object identifier of the object*, [0026]);

obtaining said meta-information from said calendar information (*determine whether the objects are new or unique relative to other objects listed in calendar system database 104 (e.g., based upon a unique object identifier), and*

aggregate or store the activities in calendar system database 104 in association with the unique object identifier of the object, [0026]); and

assigning said meta-information to said user provided information (*Calendar system database 104 stores information (e.g., "metadata") about computer files stored on and activities carried out on a computer or computing device. The metadata may include conventional information, such as is conventional for computer-generated documents, including when the file was created, who created it, and a modification history*, [0025]).

It would have been obvious to a person with ordinary skills in the art at the time of the invention was made to incorporate the teachings of Vronay with the teachings of Brechner, as modified by Spriestersbach, for the purpose of searching past events and computer information processed on the computer without direct user input by providing a user interface that displays various types of information in the context of a calendar to provide users with event associations ([0007] of Vronay).

Regarding **claim 7**, Vronay further discloses, wherein said obtaining of meta-information from said calendar information comprises:

obtaining a first time information in accordance with said user provided information (*a calendar-based interface system of this invention automatically integrates time-based information with metadata tagging to determine relationships between computer information (e.g., a family vacation may be*

associated with when vacation photos were taken and subsequently shared), [0006]);

obtaining a plurality of calendar entries included in said calendar information, each calendar entry comprising a second time information, (*subsequent use of the pictures are also tagged with time-based in formation*, [0006]);

matching said first time information and each of said second time information (*The user context can be determined automatically, for example, by monitoring the user's computer activities and identifying from metadata associated with the computer activities what information is currently relevant to the user*, [0006]);

obtaining said meta-information from each matching calendar entry of said plurality of calendar entries (*The context-specific calendar display can further be used by the user to form a query for accessing relating information*, [0006]); and

storing said user provided information and said meta-information in said history storage in order to establish said information history functionality (*the calendar-based interface system of this invention utilizes a calendar as a dynamic application that does not require direct user input and can function as a tool for searching past events and computer information processed on the computer*, [0007]).

Regarding **claim 8**, Vronay further discloses, wherein said obtaining of said meta-information from each matching calendar entry comprises:

assigning a membership function to said second time information (*for a given target file and a collection of other files, there exists a similarity ranking between them*, [0028]);

deriving a membership grade value from said membership function in accordance with said first time information (*the association or similarities may relate to objects or files having shared content, occurring at similar times or similar computer locations, being sent to or received from a common person, are linked together*, [0029]); and

assigning said membership grade value to said user provided information; said membership grade value defining a measure which allows to estimate a reliability for retrieval (*A chunking system 108 uses the degrees of similarity or association determined by similarity or association system 106 for an arbitrarily large set of objects or files and groups or "chunks" them into a specified number of sub-groups. For instance, given 100 photos, chunking system 108 could separate them into any number of sub-groups or chunks based on one or more criteria such as the dates they were taken, or who is in the photos*, [0032]).

Regarding **claim 9**, Vronay further discloses in case said first time information relates to a first period of time:

partitioning said user provided information into a plurality information parts, each information part relates to a maximum pre-defined period of time, each information part being matched separately (*different types of documents, files, or objects can have different types of similarity. For instance, two photos can look similar, could be taken at similar times, event, could be parts of the same photo (e.g., one could have been cut from the other),* [0029]. *Note that Table 1C shows a condition of similarity based on the maximum date*).

Regarding **claim 11**, Vronay further discloses said second period of time includes certain pre-defined overhead periods of time which are appended to the beginning of said second period of time and to the ending of said second period of time *(Figure 4 shows a user query 400 having been entered into the "when" segment or tab 302 of calendar search user interface 300. For example, the user can graphically select a day or a date range query 400 that forms the basis for a query a query of calendar system database 104. In this illustration, the selected date range 400 corresponds to Feb. 20-22, 2002*, [0050]).

Regarding **claim 12**, Vronay further discloses each of said plurality of calendar entries being included in said calendar information is semantically structured and said obtaining of meta-information from each matching calendar entry (*Figure 11*) comprises:

obtaining of meta-information from each of said matching semantically structured calendar entry (*Figure 11 shows a search result for the term "Project*

Orcas" being displayed with each corresponding date that is related to the project).

Regarding **claim 29**, Vronay further discloses, wherein said retrieving of said user provided information comprises:

evaluating said user provided information being retrieved on the basis of said membership grade values obtained from calendar entries (*the association or similarities may relate to objects or files having shared content, occurring at similar times or similar computer locations, being sent to or received from a common person, are linked together*, [0029]);

said membership grade value defining a measure which allows to estimate a reliability for retrieval (*A chunking system 108 uses the degrees of similarity or association determined by similarity or association system 106 for an arbitrarily large set of objects or files and groups or "chunks" them into a specified number of sub-groups. For instance, given 100 photos, chunking system 108 could separate them into any number of sub-groups or chunks based on one or more criteria such as the dates they were taken, or who is in the photos*, [0032]).

Regarding **claim 36**, Vronay further discloses:

a component ([0073]) for obtaining calendar information from an electronic calendar implemented in said apparatus (*calendar-based interface system may be implemented as software that is stored on and executed by one or more computers such as handheld devices, digital cellular telephone etc.*, [0022]), said

calendar information representing context information (*Table 1A shows a list of exemplary information that may be obtained by system activity monitor 102 and stored in calendar system database 104*, [0026]);

a component ([0073]) for matching said calendar information and said user provided information (*system activity monitor 102 may obtain the information about the objects with which a computer user interacts, determine whether the objects are new or unique relative to other objects listed in calendar system database 104 (e.g., based upon a unique object identifier), and aggregate or store the activities in calendar system database 104 in association with the unique object identifier of the object*, [0026]); and

a component ([0073]) for obtaining meta-information from said calendar information matched to said user provided information (*determine whether the objects are new or unique relative to other objects listed in calendar system database 104 (e.g., based upon a unique object identifier), and aggregate or store the activities in calendar system database 104 in association with the unique object identifier of the object*, [0026]).

7. **Claim 10** is rejected under 35 U.S.C. 103(a) as being unpatentable over Brechner et al. (*Pat. No. US 6,741,996, filed on April 18, 2001; hereinafter Brechner*) in view of Spriestersbach et al. (*Pub. No. US 2003/0148773, filed on April 30, 2002; hereinafter Spriestersbach*), further in view of Vronay et al. (*Pub. No. US 2003/0156138, filed on June 28, 2002; hereinafter Vronay*), and further in

view of Gupta et al. (*Pat. No. US 6,484,156, filed on September 15, 1999; hereinafter Gupta*).

Regarding **claim 10**, Brechner, as modified by Spriestersbach and Vronay, does not disclose the limitations of this instant claim.

Gupta discloses in case said first time information relates to a first period of time and said second time information relates to a second period of time; and in case said first period of time exceeds said second period of time (*Figure 10 shows a target file is being divided into multiple segments, each segment has a corresponding play time*, [Column 8, Lines 10-23]):

sectioning said user provided information into at least two information sections, one of said at least two information sections fitting with said second period of time, said one fitting information section being matched (*Figure 10 shows if the search time from 000:04:08.262 to 000:11:00.14 matches a segment, that segment will be retrieved when the 'Play' button is pressed. See further Figure 4 for all searchable fields in an annotation entry*).

It would have been obvious to a person with ordinary skills in the art at the time of the invention was made to incorporate the teachings of Gupta with the teachings of Brechner, as modified by Spriestersbach and Vronay, for the purpose of providing easy access to different multimedia streams by using a group identifier to identify all of the multimedia streams and their corresponding annotations ([Column 2, Lines 34-46] of Gupta).

8. **Claim 14** is rejected under 35 U.S.C. 103(a) as being unpatentable over Brechner et al. (*Pat. No. US 6,741,996, filed on April 18, 2001; hereinafter Brechner*) in view of Spriestersbach et al. (*Pub. No. US 2003/0148773, filed on April 30, 2002; hereinafter Spriestersbach*), and further in view of Asazu (*Pub. No. 2001/0049691, published on December 6, 2001*).

Regarding **claim 14**, Brechner, as modified by Spriestersbach, further discloses said user input information comprises control signals related to said recording of said user provided audio information, further comprises:

on receiving a keyword signal: initiating a recording of a user provided audio keyword information including keywords relating to said user provided audio information (*the file suffix is added as a keyword in the metadata for the file in a block 180. The suffix is the media file extension, such as "wav" for audio files in the wave format*, [Column 10, Lines 32-44]);

Asazu discloses:

on receiving a start signal: initiating said recording and storing of said user provided audio information (*The following processing is executed in response to the query #2. Firstly, the QT plug-in component 14 calls a function of start ( ) to the recorder 25 to issue an instruction to start recording of media data. Subsequently, the recorder 25 notifies the logger 24 of the instruction to start recording of media data*, [0068]);

on receiving an attach signal: associating additional information with said user provided audio information (*In this case, the recorder 25 calls a function of notify ( ) to the recording manager 26 whenever each frame is processed. The recording manager 26 activates the DA plug-in component 15 registered by the system in advance per frame data. Each DA plug-in component 15 executes an analysis of frame data to create meta-data*, [0068]);

on receiving a pause signal: pausing said recording and storing of said user provided audio information (*The following processing is executed in response to the query #3. The QT plug-in component 14 calls a function of stop ( ) to the recorder 25 to issue an instruction to stop recording of media data. The recorder 25 stops recording of media data, while notifying the logger 25 that recording of media data is stopped*, [0069]);

on receiving a continue signal: resuming said recording and storing of said user provided audio information subsequently to said pausing of said recording and storing (*the processing for acquiring the information relating to meta-data is interrupted for the duration of the above access until the end of the other transaction. Thereafter, the QT plug-in component 14 resumes the processing to acquire the information relating to the required meta-data*, [0078]. *It is also very well-known in the art that resuming a paused recording part would start at the pausing point like in a digital voice recorder*); and

on receiving a stop signal: stopping said recording and storing of said user provided audio information and generating said recording context information

(*The QT plug-in component 14 calls a function of commit ( ) to the recorder 25, resulting in completion of recording of media data. It is to be understood that calling a function of abort ( ) instead of the function of commit ( ) aborts all the media data and meta-data recorded or created in this session after calling of the function of start ( ), and the system is restored to its original state*, [0069]).

It would have been obvious to a person with ordinary skills in the art at the time of the invention was made to incorporate the teachings of Asazu with the teachings of Brechner, as modified by Spriestersbach, for the purpose of providing media data management functions including replaying, readout, recording, deletion and synthesis of media data by the use of meta-data ([0013] and Abstract of Asazu).

9. **Claims 15-16** are rejected under 35 U.S.C. 103(a) as being unpatentable over Brechner et al. (*Pat. No. US 6,741,996, filed on April 18, 2001; hereinafter Brechner*) in view of Spriestersbach et al. (*Pub. No. US 2003/0148773, filed on April 30, 2002; hereinafter Spriestersbach*), and further in view of Gupta et al. (*Pat. No. US 6,484,156, filed on September 15, 1999; hereinafter Gupta*).

Regarding **claim 15**, Brechner, as modified by Spriestersbach, does not explicitly disclose the limitations of this instant claim.

Gupta discloses a recording context information at least including:

information and time information about said user provided audio information (*Figure 4, see Time Range #184*);

time information about said user input information *Figure 4, see Creation Time #188*); and

information about said additional user provided information being associated with the user provided audio information (*Figure 5 shows the annotation entry used to associate with the media*).

It would have been obvious to a person with ordinary skills in the art at the time of the invention was made to incorporate the teachings of Gupta with the teachings of Brechner, as modified by Spriestersbach, for the purpose of providing easy access to different multimedia streams by using a group identifier to identify all of the multimedia streams and their corresponding annotations ([Column 2, Lines 34-46] of Gupta).

Regarding **claim 16**, Gupta further discloses said generating of said recording context information comprises:

encoding said meta-information as a document being encoded in accordance with a markup language (*communication between client 15 and server 10 is performed via HTTP, using commands encoded as Uniform Resource Locators (URLs) and data formatted as object linking and embedding (OLE) structured storage documents, or alternatively using Extensible Markup Language (XML)*, [Column 6, Lines 9-15]).

10. **Claims 18**, **20**, **23**, and **38**, are rejected under 35 U.S.C. 103(a) as being unpatentable over Brechner et al. (*Pat. No. US 6,741,996, filed on April 18, 2001;*

hereinafter Brechner) in view of Spriestersbach et al. (*Pub. No. US 2003/0148773, filed on April 30, 2002; hereinafter Spriestersbach*), and further in view of Tecu et al. (*Pub. No. US 2004/0034655, filed on July 17, 2002; hereinafter Tecu*).

Regarding **claim 18**, Brechner, as modified by Spriestersbach, does not disclose the limitations of this instant claim.

Tecu discloses:

providing a set of code bases representing a plurality of coding symbols (*frequency data 60 in Figure 1*), each code base of said set of code bases comprising a pre-defined number of pre-defined frequencies (*At step 114, encoder routine 26 selects the frequencies 62 for encoding metadata 40. For example, encoder routine 26 may access frequency data 60 to acquire one or more default frequencies 62 for encoding metadata 40. Frequency data 60 may also comprise one or more frequencies 62 selected by a user of system 10 for encoding metadata 40*, 0027]);

mapping said meta-information into said a plurality of coding symbols (*At step 116, encoder routine 26 designates metadata 40 to be encoded at each of the selected frequencies 62. For example, each type of metadata 40 to be included in the particular data stream 32 may be encoded at each of a plurality of designated frequencies 62*, [0028]); and

combining said user provided audio information and said mapped meta-information by embedding said mapped meta-information into said user provided audio information (*encoder routine 26 may also populate initial portions of audio data 34 with information identifying the encoding frequencies 62, intensity levels 72,* [0029]).

It would have been obvious to a person with ordinary skills in the art at the time of the invention was made to incorporate the teachings of Tecu with the teachings of Brechner, as modified by Spriestersbach, for the purpose of encoding metadata at a plurality of predetermined intensity levels at a human-inaudible frequency and populating the audio data of the data stream with the encoded metadata using an encoder routine accessible by the processor ([0003] of Tecu).

Regarding **claim 20**, Tecu further discloses said providing of said set of code bases comprises:

providing a set of code bases within a first frequency range, said first frequency range being one frequency range of a plurality of frequency ranges (*frequency data 60 in Figure 1, range is 20kHz or greater to render inaudible to human hearing*, [0019]);

mapping said set of code bases into each frequency range of a plurality of frequency ranges, said plurality of frequency ranges forming a total frequency range being applicable to said user provided audio information (*encoder routine 26 may encode metadata 40 at a frequency 62 generally inaudible or*

imperceptible to human hearing such that the encoded metadata 40 does not detrimentally affect audio data 34 audible to human hearing, [0019]).

Regarding **claim 23**, Tecu further discloses a method for extracting meta-information from an audio information having embedded said meta-information, said method comprising:

providing a correlation basis comprising each frequency being included in a set of code bases representing a plurality of coding symbols (*Figure 1, frequency data 60*), said coding symbols being employed for coding said meta-information (*relational data 50 may be generated after decoding of metadata 40 by decoder routine 28, or relational data 50 may be generated upon encoding or insertion of metadata 40 into a particular data stream 32*, [0021]); and

applying said correlation basis onto said user provided audio information having embedded said meta-information to extract said meta-information (*Processor 16 also generates relational data 50 corresponding to the encoded metadata 40 such that metadata 40 may be correlated to particular data streams 32*, [0021]);

wherein said extracted meta-information being available for retrieval (*search engine 20 may be used to quickly and efficiently locate a particular data stream 32 using search parameters corresponding to metadata 4*, [0021]).

Regarding **claim 38**, Tecu further discloses:

a set of code bases representing a plurality of coding symbols (*frequency data 60 in Figure 1*), each code base of said set of code bases comprising a pre-defined number of pre-defined frequencies (*At step 114, encoder routine 26 selects the frequencies 62 for encoding metadata 40. For example, encoder routine 26 may access frequency data 60 to acquire one or more default frequencies 62 for encoding metadata 40. Frequency data 60 may also comprise one or more frequencies 62 selected by a user of system 10 for encoding metadata 40*, 0027]);

a component ([0012]) for mapping said meta-information into said a plurality of coding symbols (*At step 116, encoder routine 26 designates metadata 40 to be encoded at each of the selected frequencies 62. For example, each type of metadata 40 to be included in the particular data stream 32 may be encoded at each of a plurality of designated frequencies 62*, [0028]); and

a component ([0012]) for obtaining a user provided audio information having embedded said meta-information by embedding said mapped meta-information into said user provided information (*encoder routine 26 may also populate initial portions of audio data 34 with information identifying the encoding frequencies 62, intensity levels 72*, [0029]).

11. **Claims 19**, **21-22**, **24** and **26**, are rejected under 35 U.S.C. 103(a) as being unpatentable over Brechner et al. (*Pat. No. US 6,741,996, filed on April 18, 2001; hereinafter Brechner*) in view of Spriestersbach et al. (*Pub. No. US 2003/0148773, filed on April 30, 2002; hereinafter Spriestersbach*), further in

view of Tecu et al. (*Pub. No. US 2004/0034655, filed on July 17, 2002; hereinafter Tecu*), and further in view of Tsuruoka (*Pat. No. US 6,192,056, published on February 20, 2001*).

Regarding **claim 19**, Brechner, as modified by Spriestersbach and Tecu, discloses said combining comprises:

obtaining a modulation signal from said mapped meta-information (*intensity data 70 having information associated with encoded metadata 40. For example, in the illustrated embodiment, intensity data 70 comprises signal amplitude or intensity levels 72 used to encode metadata 40 such that various intensity levels 72 may be used to designate a particular bit pattern of information*, [0017] of Tecu).

Brechner, as modified by Spriestersbach and Tecu, does not disclose the other limitations.

Tsuruoka discloses:

obtaining a modulated signal by combining said user provided audio information and said modulation signal in a frequency domain (*a modulated signal using a multiplicity of carriers whose frequency components are in an orthogonal relationship with one another, encodes data such as audio data or the like, and the encoded data are allocated to each carrier, thereby modulating each carrier, a digital signal in the frequency domain comprised of each modulated*

carrier is inverse fast Fourier transformed into a digital signal in a time domain, [Column 1, Lines 23-31]); and

obtaining said user provided audio information having embedded said meta-information by combining said modulated signal with said user provided audio information in a time domain (*On its demodulating side, by A/D converting such an OFDM modulated signal and then applying the fast Fourier transform to the A/D converted signal, the encoded data allocated to each carrier is obtained*, [Column 1, Lines 28-31]).

It would have been obvious to a person with ordinary skills in the art at the time of the invention was made to incorporate the teachings of Tsuruoka with the teachings of Brechner, as modified by Spriestersbach and Tecu, for the purpose of demodulating a digital orthogonal frequency division multiplex modulated signal in which an information signal modulates a plurality of carriers whose frequency components are in an orthogonal relationship with one another using OFDM (Orthogonal Frequency Division Multiplex) modulation ([Column 1, Lines 14-22] of Tsuruoka).

Regarding **claim 21**, Tsuruoka further discloses said obtaining of said modulated signal comprises:

obtaining said modulated signal by multiplying said user provided audio information and said modulation signal in said frequency domain (*a modulated signal using a multiplicity of carriers whose frequency components are in an orthogonal relationship with one another, encodes data such as audio data or the*

like, and the encoded data are allocated to each carrier, thereby modulating each carrier, a digital signal in the frequency domain comprised of each modulated carrier is inverse fast Fourier transformed into a digital signal in a time domain, [Column 1, Lines 23-31]).

Regarding **claim 22**, Tsuruoka further discloses:

obtaining said user provided audio information having embedded said meta-information by adding said modulation signal and said user provided audio information in said time domain (*On its demodulating side, by A/D converting such an OFDM modulated signal and then applying the fast Fourier transform to the A/D converted signal, the encoded data allocated to each carrier is obtained*, [Column 1, Lines 28-31]).

Regarding **claim 24**, Brechner, as modified by Tecu, discloses said applying comprises:

obtaining a modulation signal from said correlation basis (*intensity data 70 having information associated with encoded metadata 40. For example, in the illustrated embodiment, intensity data 70 comprises signal amplitude or intensity levels 72 used to encode metadata 40 such that various intensity levels 72 may be used to designate a particular bit pattern of information*, [0017] of Tecu);

extracting magnitude signal values from said correlation signal (*intensity data 70 comprises signal amplitude or intensity levels 72 used to encode metadata 40 such that various intensity levels 72 may be used to designate a*

particular bit pattern of information, [0017] of Tecu), said magnitude signal values corresponding to each code basis of said set of code bases (*encode metadata at a plurality of predetermined intensity levels at a human-inaudible frequency and populate the audio data of the data stream with the encoded metadata*, [0003] of Tecu); and

evaluating said magnitude signal values to retrieve said meta-information from said user provided audio information (*various intensity ranges 74 may also be used to designate a particular bit pattern of information. For example, a particular range of signal level strengths may be used to identify a bit designation of "1" while another range of signal level strengths may be used to identify a bit designation of "0"*, [0017] of Tecu).

Tsuruoka discloses:

obtaining a correlation signal from said user provided audio information by convoluting said modulation signal and said user provided audio information having embedded said meta-information in a frequency domain (*a modulated signal using a multiplicity of carriers whose frequency components are in an orthogonal relationship with one another, encodes data such as audio data or the like, and the encoded data are allocated to each carrier, thereby modulating each carrier, a digital signal in the frequency domain comprised of each modulated carrier is inverse fast Fourier transformed into a digital signal in a time domain*, [Column 1, Lines 23-31]).

Regarding **claim 26**, Brechner, as modified by Tecu, discloses said correlation basis being defined in a first frequency range (*frequency data 60 in Figure 1, range is 20kHz or greater to render inaudible to human hearing*, [0019] of Tecu) and said obtaining of said correlation signal comprises :

providing a correlation basis comprising all frequencies of said set of code bases within a first frequency range of a plurality of frequency ranges (*frequency data 60 in Figure 1, range is 20kHz or greater to render inaudible to human hearing*, [0019] of Tecu);

mapping said correlation basis into each frequency range of a plurality of frequency ranges, said plurality of frequency ranges forming a total frequency range being applicable to said user provided audio information to obtain said modulation signal (*Processor 16 also generates relational data 50 corresponding to the encoded metadata 40 such that metadata 40 may be correlated to particular data streams 32*, [0021] of Tecu); and

Tsuruoka discloses:

obtaining said correlation signal from said user provided audio information by convoluting said modulation signal and said user provided audio information in said frequency domain (*a modulated signal using a multiplicity of carriers whose frequency components are in an orthogonal relationship with one another, encodes data such as audio data or the like, and the encoded data are allocated to each carrier, thereby modulating each carrier, a digital signal in the frequency*

domain comprised of each modulated carrier is inverse fast Fourier transformed into a digital signal in a time domain, [Column 1, Lines 23-31]).

12. **Claim 25** is rejected under 35 U.S.C. 103(a) as being unpatentable over Brechner et al. (*Pat. No. US 6,741,996, filed on April 18, 2001; hereinafter Brechner*) in view of Spriestersbach et al. (*Pub. No. US 2003/0148773, filed on April 30, 2002; hereinafter Spriestersbach*), further in view of Tecu et al. (*Pub. No. US 2004/0034655, filed on July 17, 2002; hereinafter Tecu*), further in view of Tsuruoka (*Pat. No. US 6,192,056, published on February 20, 2001*), and further in view of Levy et al. (*Pub. No. US 2002/0031240, filed on December 6, 2000; hereinafter Levy*).

Regarding **claim 25**, Brechner, as modified by Spriestersbach, Tecu, and Tsuruoka, discloses extracting metadata using a magnitude value (*various intensity ranges 74 may also be used to designate a particular bit pattern of information. For example, a particular range of signal level strengths may be used to identify a bit designation of "1" while another range of signal level strengths may be used to identify a bit designation of "0"*, [0017] of Tecu).

Brechner, as modified by Tecu, Spriestersbach, and Tsuruoka, does not disclose the first two limitations.

Levy discloses:

obtaining magnitude ratio values of each pair of said magnitude signal values (*For each of the M selected coefficients, x, the embedder computes a ratio of the magnitude of a selected coefficient relative to the magnitude of its*

neighbors (108). In particular, it is a ratio of the magnitude of the selected coefficient to the average magnitude of the surrounding neighbors, [0013])*;*

normalizing said magnitude ratio values (*The embedding and detecting operations apply to other media types, including audio media signals. In addition, the frequency domain coefficients may be selected and adjusted to reference values to detect other types of signal alteration, such as lossy compression, digital to analog and analog to digital conversion, downsampling and upsampling, etc*, [0031]); and

It would have been obvious to a person with ordinary skills in the art at the time of the invention was made to incorporate the teachings of Levy with the teachings of Brechner, as modified by Spriestersbach, Tecu, and Tsuruoka, for the purpose of detecting and analyzing alteration of a watermarked media signal that contains data information by examining signal peaks at selected frequency coefficients in the media signal ([0008] of Levy).

Conclusion

13. **THIS ACTION IS MADE FINAL**. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son T. Hoang whose telephone number is (571) 270-1752. The Examiner can normally be reached on Monday - Friday (7:30 AM – 4:00 PM).

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Christian Chace can be reached on (571) 272-4190. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information

for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Son T Hoang/
Examiner, Art Unit 2165
July 09, 2008

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